

IN THE SPECIFICATION

Please amend the paragraph beginning at page 1, line 16 as follows:

The present generation of many networking and computing devices supports both local and remote methods of configuration. For example, the use of a locally connected terminal to configure a device using a console user interface (CUI) to the device's serial console is very common. At the same time the use of a remotely connected workstation with a graphical user interface (GUI) to configure the same device is also an expected device management product feature. Though running on different platforms, both the CUI and GUI must use the same predefined command set to update the configuration file. Regardless of the method used, the ultimate purpose is to refresh the state of the remote device's configuration ~~kernal~~ kernel (CK) by means of a configuration file. The CK includes all the variables, data structures and functions whose purpose is to maintain the state of the configuration of the device (e.g. user names, passwords, timeout values, etc.). The configuration file is an ASCII flat file that contains configuration commands used to refresh the CK.

Please amend the paragraph beginning at page 4, line 2 as follows:

According to one aspect of the invention, a method for developing a graphical device management application is provided for creating a graphical component using a graphical programming language and associating the graphical component with a device configuration command. The method further provides for linking the associated graphical component with a console user interface (CUI) and a configuration ~~kernal~~ kernel (CK). Both the CUI and CK have code for configuring a remote device according the device configuration command. Finally, the method provides for building a graphical user interface (GUI) from the linked graphical component, the CUI and the CK.

Please amend the Abstract as follows:

A method and apparatus is provided for remote device management using a virtual console. The method and apparatus implements a normalized scheme for developing a graphical user interface (GUI) for remotely managing any computer or networking device that has a console user interface (CUI) for updating a device configuration using a set of predefined configuration commands, and an underlying configuration ~~kernal~~ kernel (CK) for maintaining the state of the device configuration (e.g. user names, passwords, timeout values, etc.). By re-using the CUI and underlying CK code, the scheme requires minimal specific knowledge of the configuration command set implementing the CUI and CK configuration functionality, thereby eliminating the necessity for creating redundant command set aware code in the GUI. In one embodiment, the method and apparatus employs a set of object-oriented classes and macros which interact with the CUI in a standardized manner to associate GUI components with the corresponding configuration command set. The standardized manner of interacting includes refreshing the state of the GUI in response to messages sent from the CUI, and sending messages to the CUI in response to user actions in the GUI. As a result, the GUI functions as a user-friendly interface that encapsulates the functionality of the CUI and underlying CK, and the CUI functions as a virtual console for the remote device.